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Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

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Empfohlene Zitierung / Suggested Citation:

Waetjen, T., & Parle, J. (2005). Teaching African history in South Africa: post-colonial realities between evolution and religion. *Afrika Spectrum*, 40(3), 521-534. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-104809>

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Julie Parle / Thembisa Waetjen

Teaching African history in South Africa Post-colonial realities between evolution and religion¹

Educational transformation in South Africa over the last decade has created new pathways for young people from disadvantaged educational contexts to enter university, and a range of supportive 'bridging' courses in the humanities and social sciences now exist at many institutions of higher learning. Within these programmes, course developers face the difficulties of developing a curriculum that focuses on 'foundational' knowledge whilst also being relevant to local and regional issues and concerns. Our paper summarizes debates around and related to a year long course called 'Africa in the World' (AITW), currently taught at the University of KwaZulu-Natal. After outlining the aims and structure of the course, we offer a critical assessment of our experiences developing and coordinating AITW, highlighting some of its difficulties and challenges, as well as contextualising some of the most problematic areas for our students.

Enabling access to tertiary education for individuals hailing from disadvantaged educational contexts is an important aspect of democratization in South Africa, and a stated avenue identified for redress of social inequalities, past and present. Present schools continue to fall short in the quality of education and the social divisions in the educational system produced by apartheid prove notoriously difficult to eliminate. A majority of students in the region are under-prepared for successful completion of university.² A recent press report indicated that about half of first year students who begin tertiary education have dropped out, failed, or been excluded by their second year. Of those that remain, only half complete their degree in three years.³ Such circumstances justify the formation of an 'extended curriculum' in which under-prepared students are allotted an additional year at the beginning of their studies to hone their study skills and garner a knowledge-base appropriate to their chosen area of study.

1 This is the revised, considerably shorter version of a paper originally presented to the Biennial Conference of the South African Historical Society at the University of Cape Town, 26 to 29 June, 2005. Please contact the authors (parlej@ukzn.ac.za or waetjent1@ukzn.ac.za) for a full-length paper, offering more factual information on the origin, structure and context of AITW.

2 Boughey, C., From Equity to Efficiency: Access to higher education in South Africa. In: *Arts and Humanities in Higher Education* 2 (1)2003: 65-71.

3 'Kick out eternal students': Education Minister gets tough', *The Weekend Witness*, 13 May 2005.

'Bridging' programmes have been a favoured method of providing instruction in the skills and knowledge-based considered necessary to succeed in mainstream university studies. The Humanities Foundation Year (HFY) at the University of KwaZulu-Natal, is one such programme. Funded both by the Norwegian government and the Department of Education, its mission is to prepare 'students from schools disadvantaged in terms of monetary and human resources' for university study through a curriculum of modules that 'develop a range of knowledges, competencies and skills, involving conceptual depth'.⁴ Because of its admissions criteria, virtually all of Foundation students are African, the majority for whom isiZulu is a first language. There are 80 students in Pietermaritzburg and 108 at Howard College. Most come from rural or township educational institutions. Recent research indicates that student perceptions of the selection criteria are somewhat negative: there is confusion and disappointment about the demographic narrowness of the access cohort, with some students feeling ghettoized.⁵ These demographic factors, and the sensitivities associated with them, have also affected the experience of teaching a course focused on Africa.

Launched in 2001, 'Africa in the World: From Nascence to Renaissance' (AITW) was conceptualised as the 'content' and 'bridging' course on the Pietermaritzburg campus of the former University of Natal. Along with modules in Academic Literacy and English Language Development, AITW runs across two semesters. It introduces the long-term history of Africa continent, its current situation, and its relationships with the rest of the world as they have developed over time.

The placement of Africa at the heart of a foundation course has obvious appeal at a number of levels: ignorance of the continent's past – both long-term and recent – contributes to its marginalization in school and tertiary curricula, and, it may be argued, on the wider stage of national and international affairs. This neglect of African studies is, of course, in large part a legacy of a colonialist and apartheid discriminatory schooling and knowledge regimes. Simply reclaiming knowledge of the past – as the last several generations of social history have shown – carries emancipatory possibilities. One of the major objectives is to encourage the recognition and valuing of the continent's many strengths, as well as to help participants think creatively about how an academic degree may help in meeting the challenges of Africa's many problems.

It was envisioned that in AITW students would:

1. Reflect on the dominant images of Africa today.

4 Human and Social Sciences Foundation Programme Template, UKZN.

5 Essack, Zaynab and Quayle, Michael Frank, 'Student perceptions of a University access (bridging) programme for social science, commerce and humanities' (unpublished paper, cited with permission of the authors).

2. Gain exposure to scientific method and evidence-based analysis in the social sciences.
3. Learn the broad outlines of the theories pertaining to the origins of the universe, of the formation of our planet and its continents, of life, of the principles of natural selection and evolution.
4. Conceptualize time, chronology and change by constructing time-lines.
5. Identify the significance of Africa's major climatic zones and geographical features.
6. Understand, broadly, the background to the disadvantaged relationships between Africa and the West from circa 1500.
7. Be aware of the role that disease has played in world history, so as to assess the significance of the HIV/AIDS pandemic today.
8. Reflect on the elements that make up social identity: including culture, 'race', class, ethnicity and gender.
9. Develop an awareness of the different indices used for measuring economic and material disparities, and to be able to 'read' these in charts, graphs, and tables.
10. Comment on contemporary debates about globalization in regard to Africa.

A variety of disciplines – from genetics, palaeontology, geology, linguistics, biomedicine, and theology – are reasserting the fundamental importance of this continent in world and human history. Scientists, politicians, educators and Africanist scholars have called for a new focus on the place of Africa in the world. Most importantly, many of these new avenues of inquiry – if correctly understood – carry the powerful potential to demolish pejorative and essentialized constructions of racial and socio-cultural difference, and to assert the far deeper commonalities of human history.

However, in designing and teaching the course it became apparent that the disciplinary boundaries between the Humanities and Natural Sciences are an impediment to understanding that 99% of the past that is usually omitted from our education – from the origins of the cosmos to the evolution of *homo sapiens sapiens* as the human race.⁶ The nature of the course material generates controversy (we will argue, a healthy controversy) among the students, as well as some of the teaching staff, largely because it proposes that embracing some elementary biology, physics, paleontology and zoology is a foundational pathway to those questions about human nature (behavioral, psychological, social, philosophical, etc..) raised in the disciplines of a Humanities Faculty. Among the topics that prove most heated is the introduction of human evolution, which places Africa at the center of human origins and yet simultaneously raises the uncomfortable issues of racialized politics in global history, as well as the sensitivities related to students' overwhelmingly fundamentalist Christian beliefs.

6 Lever, Jeffrey, 'Science, Evolution and Schooling in South Africa'. In: James, Wilmot and Wilson, Lynne (eds.), *The Architect and the Scaffold: Evolution and Education in South Africa* (Cape Town: HSRC and New Africa Education, 2002), p.41.

These issues have inspired the authors to reflect on the interface between the content of this access module, the historical structures of class and race that have generated necessities for 'access' education in this country, and the global and local meanings that arise from the process by which particular students as historical agents interact with this material. The course, in other words, is potentially an avenue to consider the interface of global and local knowledge exchanges, and the histories that create a particular response and resistance to types of scientific knowledge that are under attack elsewhere in the world. Our reflection here is necessarily suggestive, new as we are to this field.

Reactions to teaching AITW

In a humanities foundation course, it is difficult to address concepts such as the 'Big Bang' and 'Natural Selection' with adequate technical depth. These theories are extremely difficult to teach: not only do they require a level of scientific literacy that many of us in the humanities and social sciences lack; they also may challenge deeply held belief systems. Students' initial encounter with the summary of 'Big Bang' theory generates laughter and incredulity. As a narrative of origin it appears much more improbable to students than the stories in Genesis of which they are intimately familiar. Students, as well as some lecturing staff, in AITW have consistently asked that the scientific discussions of origins—from the 'Big Bang' to human evolution—be cut or condensed so that the course may move quickly to the 'more recent stuff', which, it is felt, is of more directly demonstrable relevance and less personally threatening to students' religious beliefs. This is admittedly a disconcerting aspect of 'exposing' students to complex ideas in a shorthanded way because it exposes the extent to which science literacy rests in part on popular socialization into a modern faith. Where television, and other popular conveyers of science media such as Nova and National Geographic have been unavailable to lay a groundwork for this 'belief', conveying the discoveries of science 'cold turkey' has an otherworldly (even missionary) feel to it.

There are at least four contextual reasons that make evolution a challenge to teach at this level. Firstly, although the promotion of science and mathematics has been a stated aim, there is no clear and developed policy established by Department of Education on teaching evolution at the Primary or Secondary levels. As a result, few learners (foundational or otherwise) come to university with any knowledge of scientific principles of evolution (not to mention 'big bang' theory, continental drift and plate tectonics). Secondly, the science of evolution is perceived as incompatible with the story of creation presented in the Judeo-Christian text of Genesis. Fundamentalist religious beliefs, which view the Bible as the literal word of God, reject the scale of time,

the geological principles, and the explanation of life's origins that are fundamental to the currently accepted scientific theories. Thirdly, and perhaps most obviously, the painful legacy of Social Darwinism and its connections with racial pseudo-sciences has tainted the reputation of evolutionary science. While many regard evolution as being important to undermining the 'genetic myths' that underpin the fallacy of a humanity divided into biological races, others are put off by the difficulties of teaching this material in a way that does not lead to misconceptions that reinforce old stereotypes and hurtful prejudices. Finally, there is the broader, global trend that has accompanied the birth of modernity and science: a resistance and suspicion of science that manifests in a diversity of ways, what Hobsbawm has described as 'a rejection of the claims and rule of science...'⁷

The controversy around teaching evolution in schools has been sufficiently powerful to steer secondary school curriculum away from awarding it adequate attention for learners. At present, the National Curriculum Statement recommends only vague attention to hominid development and fossil finds in Grade 7. Four years ago, when the revised 2005 curriculum statement was being drawn up, a commissioned report (Ndebele 2000) indicated a discomfort with the teaching of evolutionary theory in schools:

In terms of content, the Panel wishes to record at the outset that this document offers no examination of, nor recommendation on, the specific teaching of human evolution within the historical and human biological disciplines, despite the question of evolution forming part of our initial brief. While agreeing fully that a thorough understanding of the science of human evolution is important in undermining the genetic myths which underlie racial prejudice, members of the Panel could not resolve sharply differing views on the most appropriate location for teaching evolution at a school level.⁸

Given this indecision, it is yet surprising that the current official history website for teaching South African history (www.sahistory.org.za) which offers lesson plans for teachers and supplementary material for learners dedicates only a single, obtuse paragraph to evolutionary theory. This is followed by a link inviting students to learn 'more about Darwin's theory' which brings up a Christian creationist website sponsored by 'All about GOD Ministries, Inc' based in Colorado Springs, USA (see <http://darwins-theory-of-evolution.com>). The website describes the principles of natural selection as a 'theory in crisis' and suggests that not only Christians, but 'scientists' as well,

7 Hobsbawm, Eric, *Age of Extremes: The Short Twentieth Century, 1914-1991*. (London: Abacus, 1994), p. 530.

8 Quoted in Gardiner, Michael, 'History and Archaeology in Education' (2001) accessed at <http://sahistory.org.za/pages/classroom/pages/forum/articles/forum3.htm>.

are doubtful about its validity—the insinuation being that it is not an accepted theory and therefore unworthy of concerted study. Other lessons in the South African History ‘evolution’ section address the local fossil finds in Sterkfontein and elsewhere, but the emphasis is on the importance of their status as Global Heritage sites. Their implications for human history or human self-understanding are averted.

In critical circles, it is recognised that in the focus on science teaching in school the ‘debate’ between evolution and ‘Creationism’ is a nettle that must be grasped. How and where, and by whom it is to be grasped, remains a matter of some discussion, however. In 2002, this issue was the subject of a colloquium sponsored by the Human Sciences Research Council, and the presentations were subsequently edited by Wilmot James and Lynne Wilson and published as *The Architect and the Scaffold: Evolution and Education in South Africa*. In her chapter ‘Science, Evolution, Religion and Education – Creating Opportunities for Learning in South African Schools’ current Minister of Education Naledi Pandor recognizes the importance of mainstreaming biology and evolution in the schools curriculum, and also, importantly, that ‘issues about race will continue to haunt us if we do not understand the meaning of racial variation and how it came about.’⁹ She follows this, however, with two – disturbing – qualifications: Firstly, she expresses the fear that it ‘may succeed in reviving the largely silent Calvinist lobby of yesteryear, and providing it with a large spoon for stirring up religious fervor and furor in our schools. Those of strong faith may suddenly feel they have a strong case, and that their beliefs and faiths are being challenged.’¹⁰ Her ‘second reservation about the proposed focus on Darwinian evolution’ lies in the ways in which ‘... it has also unfortunately been used to give support to repugnant racial theories and racist movements.’¹¹

Similar objections to teaching evolution are raised by Odora Hoppers, who in a spectacular collapsing of several hundred years of contestation declares Western religion, science and imperialism as a seamless ‘tripartite consortium’ that has silenced and marginalized non-Western ‘others’ and Indigenous Knowledge Systems. The racist legacy of Social Darwinism and pseudo-science (not to mention the harmful uses to which science and medicine will continue to be put) have an importance in South Africa that demands to be recognized, acknowledged and addressed. Indeed, and as we shall show in the next section, such a recognition is essential in successful foundation-level teaching in this country. Nonetheless, responses to contemporary challenges

9 Naledi Pandor, ‘Science, Evolution, Religion and Education – Creating Opportunities for Learning in South African Schools’. In: James and Wilson (eds.), *The Architect and the Scaffold*, p. 62.

10 Pandor, p. 62.

11 Pandor, p. 63.

that wish to reject or skirt around the teaching of evolution because of past misinterpretations and misuses offer us little in the way out of an impasse. Furthermore, it is difficult to see how appeals to 'the African perspective' of 'the reasoning embrace, the sympathetic reason [and the]... core African philosophy of Ubuntu ...'¹² are going to offer teachers of *science* a directly useful guideline unless 'science' is to be reduced to a discursive domain. Finally, concerns about the specter of Calvinism seem misplaced: conservative forces of religious belief are likely already present in the majority of schools in South Africa.

Where Hopper's and Pandor's contributions are most useful is in their call for a broadly humanistic approach to education that stresses 'the interrelatedness and interdependence of all phenomena – biological, physical, psychological, social and cultural.'¹³ Historically, however, it has not been in the sciences that this wider web of connections has been presented to learners. Indeed, it is the humanities and social sciences that provide a basis on which to frame knowledge and to debate its social uses. To give one crucial example: debates about the extent of the HIV/AIDS pandemic cannot be separated from those of understanding the social operations of gender and power, which are fundamentally *social* and *historical* questions.

This is precisely what proponents of the teaching of evolution are arguing for: not only is Darwinist evolutionary theory 'part and parcel of scientific literacy in a variety of fields', evolution is a fundamental 'integrating concept' that allows us to explore and propose coherent answers to a wide spectrum of questions.¹⁴ Moreover, as Bernard Lategan elegantly demonstrates, it may be that the teaching of evolution provides the best framework for making sense of 'large bodies of disparate, confusing and often contradictory data' Lategan highlights the commonalities between the narrative structure of creation accounts – whether they be Biblical or folk – and that of Darwinian science, explaining that what they share is an 'ability to order material and to serve a communicative need, the main function of the narrative structure is its sense-making ability.'¹⁵ He goes on to add:

Darwin's theory is a classic example of such a sense-making operation in which a myriad unconnected observations, facts and experimental results is presented in the form of a narrative, that is, in the form of a process that has a beginning, a middle, and an anticipated end. ... History, that is, the

12 Hoppers, Catherine Odora, 'The Evolution/Creationism Debate: Insights and Implications from the Indigenous Knowledge Systems Perspective'. In: James and Wilson (eds.), *The Architect and the Scaffold*, p. 85.

13 Hoppers, p. 83.

14 Lever, pp.14-17.

15 Lategan, Bernard C., 'Alternative Sense-Making Strategies – Can Our Schools Handle the Challenge?' In: James and Wilson (eds.), *The Architect and the Scaffold*, p. 67.

recording and interpretation of the past, is essentially also a sense-making process. Countless smaller incidents and unconnected facts are structured in the form of a story that *explains* how things came about, what the trends are and what future developments can be anticipated.¹⁶

In AITW, then, the sense-making narrative of evolutionary science, even if superficially taught, serves a number of important purposes: it introduces students to a world of theory that is arguably one of the most important for 'sense-making' over a variety of academic and personal issues; it provides multiple possibilities for exploring the basis on which we attempt to establish the validity or otherwise of evidence; the opportunities for constructing hypotheses, arguments and counter-argument are abundant; and properly understood, it is a powerful challenge to social constructions of race and gender *and* to the historical legacy of science in feeding into erroneous and fundamentally *unscientific* claims about racial and sexual difference and deviance.

A more substantive reason why evolution is included in the AITW syllabus is that in any account of evolution, the continent of Africa plays a central role. This centrality to human history has often been invoked by politicians and hyped by media as evidence of the need for a new respect for Africa from the rest of the world and a reason for greater pride in the history of Africa by Africans themselves. Teaching AITW, however, has shown us that there is usually strong student resistance to teaching human evolution and 'the cradle of humankind' not only for reasons of faith, but also because they are perceived by many to be a new attempt to assert the 'primitiveness' of African people. So, in addition to the difficulties experienced worldwide in the teaching of Darwinian science, there are further challenges to teaching about Africa in an African context.

Teaching Africa in a post-colonial (South) African context

In planning the Access/Foundation Year it was accepted that it was important to make the core foundation module 'relevant' and accessible to students. A way of doing this has been to focus the course on Africa, which from 'the Taung Skull' to 'Lucy' to 'the Cradle of Humankind' and to 'Mitochondrial Eve', has become synonymous with the search for 'origins'. All this should – or so it might be imagined – be reason enough to alert students to these important facts and to use them as a basis for stirring pride and interest in our continent, as well as challenging the basis of racism and of sexism. This, at least was one of AITW's early assumptions. Experience of teachers of AITW over the past four years have, however, shown that the insidious influence of negative portrayals of Africa and African peoples has left a legacy that may

16 Lategan, p. 67.

present barriers to understanding the significance of these important new themes in African studies.

As many scholars have explored, the implication of scientists, medical practitioners and researchers, anthropologists, policy-makers, psychiatrists, educationalists and governments in the perversion of Darwinism exemplified by eugenics and 'Social Darwinism' means that science – and more specifically evolutionary biology – has been tainted with racism.¹⁷ Yet it is evolution that fundamentally challenges the idea of genetic inferiority or of racial difference in any biologically meaningful sense. Not only does a lack (or refusal) of scientific literacy allow for the continuation of racial stereotypes, it robs victims of the grounds to counter such accusations. Still, unless the principles of evolutionary biology are properly grasped and conveyed, there is a danger of a new Social Darwinism creeping in.

In AITW 2005 class there was a great deal of interest in the concept of natural selection as it pertains to racial adaptations. But this did not necessarily undermine conceptions of race. While some students wrote in their exams that the fossil record supporting evolutionary theory indicates the 'absurdity of racial politics', resting as it does on 'traits that are really adaptations to environment' (student comment in final exam, June 2005) as a result of migrations out of Africa, other students considered this knowledge a new way of conceptualising 'racial purity'. Some students felt that the 'out of Africa' thesis was an indication that the only 'pure race' was the 'black man' and that 'all other races' were derivatives. While some students felt that knowledge of evolution held the potential for a more global humanism ('we are all Africans', 'we are all related'), others felt that this knowledge augmented a 'native/settler' dichotomy, by increasing the indigeneity of people with dark skin who continued to live on the continent, while augmenting the alienness or foreignness of people from other continental (European, Indian, American) diasporas.

A second response was to accuse the instructor of making the claim that Africans were 'closer' to early hominid species, due to their continued residence in the 'cradle of humanity' while other ancestors had migrated and moved on. They perceived that climatic adaptations such as skin colour and hair texture must be indications of 'development' or 'advancement' in the case of populations who moved out of Africa. The logic they attributed to the evolutionary scenario seemed to be that the negative aspects of the current African social plight (famine, conflict, HIV/AIDS) were somehow due to a stagnation associated with natural selection. The instructor also experienced several crude and angry accusations that she was saying that 'Africans were

17 For the history of scientific racism in South Africa, see Dubow, Saul, *Scientific Racism in Modern South Africa* (Cambridge: Cambridge University Press, 1995).

closer to ape ancestors' because they were 'still' in Africa. Finally, a kind of Darwinian ('survival of the fittest') logic was also employed by students to explain why some Africans were now wealthy while others were poor—the new 'free market' post-apartheid environment being the context requiring new 'adaptations'. The historical sensitivities that make such interpretations a likely aspect of teaching this material make it significantly challenging—yet it also creates a space for debate and clarification, discussion of the relationship between conceptual knowledge and power

A significant barrier to understanding, if not accepting, evolution is the difficulty and confusion shown by many students in comprehending the time-scales over which it operates. It is common for incoming students to be unaware of the different dating systems conventionally used – BC and AD, BCE and CE – or of other calendars, ways of measuring or ordering, or conceiving of time. For this reason, chronology, timelines and big numbers are the focus of a tutorial exercise on 'Time'. This tutorial begins with getting participants to draw up a time-line of their own lives, and then uses Carl Sagan's 'Cosmic Calendar' as a means of challenging students to try to conceptualize geological (and historical) time. This has proved immensely confusing, and in general, past experience shows that many students have difficulties with the metaphor/representation of the 'Cosmic Calendar'¹⁸, and even suspect that it might be being posited as an alternative to Biblical time frames. Discussions of time were central to the intellectual labour of students to make the scale and nature of the material rectify with the knowledge and beliefs they carried with them ('Perhaps God's 6 days is really many millions of our days', 'Maybe Adam and Eve were Homo Erectus', 'Perhaps the Garden of Eden is Pangaea' etc...).

It is important that we pay attention to the reality of students' conceptual deficits in measuring time: it is easy to dismiss them as a flippant means of deflecting attention from their unease with the course material, or simply as entirely facetious, but since they reflect a large majority of student responses—both written and verbal – to the exercises it is likely that there is something more significant at play here. All this points to the centrality of Christian interpretations of students to explain Life's origin. Rather than, as Lategan remarks, the majority of citizens belonging 'nominally' to one of the religious traditions,¹⁹ Christian exegesis is inextricably woven into the fabric of the daily lives of the majority of South Africans of all social, political and economic backgrounds. According to the 2001 census, approximately 80% of South Africans belong to the Christian faith.. The vast majority of these South

18 'I thought the formation of the earth happened over millions of years, not in seconds or minutes in one year' (student tutorial March 2005).

19 Lategan, p. 68.

African Christians belong to African Independent Churches, of which there are more than 4,000 and which have a combined membership of more than 10 million people. The International Religious Freedom Report for 2004 explains that

(a)though these churches originally were founded as breakaways from various mission churches (the so-called Ethiopian churches), the African Independent Churches consist mostly of Zionist or Apostolic churches and include some Pentecostal branches. The Zion Christian Church is the largest Independent African Church with 11.1% of the population. The African Independent Churches attract person from rural and urban areas.²⁰

The 15% of South Africans who 'claim no affiliation with any formal religious organization' are identified as following 'traditional indigenous religions', central to which is the importance of the ancestors. This distinction can, however, be misleading, for it is more common than not for religious syncretism to combine aspects of both Christianity and indigenous beliefs. Arguably, this is especially evident in the realm of the understanding of illness and misfortune where the origins of ailments and bad luck are comprehended in a frame that embraces a broader social context including witchcraft, and where remedies are typically sought through a variety of avenues, both professional and popular. This curative spectrum represents a plethora of therapies and healers: priests, ministers, *isangoma* and *izinyanga*, biomedical doctors, commercial remedies and the purchase and use of *muthi*, exorcism, and so on. Moreover, the Pentecostal and rapidly expanding charismatic churches (which appeal to South Africans of all ethnic affiliations) place a strong emphasis on healing through prayer and faith healing ceremonies.

Religious engagements with evolutionary science have historically had a significant impact on how science has been taught in schools and popularly understood. Indeed, and as Lever shows, from very shortly after the publication of *The Origin of Species*, 'creationism' and 'evolution' were central to debates within white orthodox institutional Christian churches. This history is not as straight-forward as one might imagine: theological liberalism, including an acceptance of evolutionary science, was advocated by some members of the Dutch Reformed Church (DRC) in the late nineteenth century, for example. On the other hand, Social Darwinism was propagated in the early decades of the twentieth century by some of the country's leading liberal intellectuals, as well as foremost scientists. These views were not, however, uncontested. From the 1930s, Southern Africa's centrality as a site for the discovery and study of human origins meant that Darwinian theory became widely ac-

20 'International Religious Freedom Report 2004' found at [http:// www.state.gov/g/drl/rls/irf/2004](http://www.state.gov/g/drl/rls/irf/2004). Accessed on 19 June 2005.

cepted in palaeontology and archaeology. This did not mean, however, that it was accepted by a majority of (white or black) South Africans.

Lever provides us with an interesting history of debates within the DRC about Darwinism in the 1930s and how a fundamentalist Calvinist position – that the Bible was the ‘final and definitive authority on both matters of faith and of fact’²¹ – formed the basis of Christian National Education. This educational ideology was actively espoused after 1948, and was officially entrenched by the National Education Policy Act of 1967.²² Even before this date, however, both white and black school curricula reflected the political and religious orientation of the state. What little evolutionary theory that had previously been covered in schools’ teaching was elided and the divine direction of the life sciences was openly stated. The consequence of this was ‘the suppression of a vital part of our scientific heritage’. Biology teaching became fragmented and content-driven, and also theoretically impoverished. This was the case in the majority of state schools that educated white pupils. Under Bantu education, such science as was taught was even more ‘hyperfactualized’ and taught by teachers who themselves were increasingly inadequately prepared to convey its coherency or meaning.

It is this legacy of scientific illiteracy that the current government has committed itself to addressing. Nor does it now face opposition from the old religious quarters. Even the DRC has accepted the teaching of Darwinism in schools and in what Lever calls mainstream Christianity ‘evolution is no longer taboo’.²³ What he does acknowledge is that ‘It is from elsewhere that opposition might come: the rapidly growing charismatic churches are increasingly making inroads into the old congregational base of the DRC, while winning converts among non-Afrikaners too.’²⁴ Astonishingly, he says nothing at all about the way in which churches and cosmologies that are followed by the majority of South Africans address questions of the origins of life, the age of the Earth, the existence of the fossil record, or of materialist explanations of our universe and its workings. And this omission is a serious one, for the experience of teaching AITW has repeatedly shown that almost without exception, incoming students share a world-view that has been formed in the context of religious teachings based on a literal reading of the Bible. Rather than having convictions challenged at school – either by the curriculum or by their teachers – it is in fact likely that the Creationist stance is reinforced by their teachers who share a similar faith.

21 Lever, p.32; original emphasis.

22 Lever, p.34.

23 Lever, p. 37.

24 Lever, p. 37.

Seeking a reflexive position for teaching AITW

In KwaZulu-Natal, there is an intriguing regional history through which we may better recognize the entanglement of indigenous knowledge systems, missionary projects, Bantu education under apartheid, and the rise of independent African churches. For, even before the notions of Social Darwinism became drawn into racial rule and segregationist policies at a national level, controversies around evolutionary ideas had left their imprint on local history. Jeff Guy²⁵ reveals that in the same year that Darwin published *Origin of Species*, Bishop of Natal John Colenso had begun seriously to question biblical accounts of creation prompted by his African interpreter and isiZulu tutor, William Ngidi. Ngidi energetically expressed doubts regarding the literalism of the truths portrayed in the biblical text. Colenso recounts joining Ngidi and two senior pupils around the fire one night as

a very animated and interesting conversation was kept up for an hour or so, which ended at last in a discussion about the waters of the Deluge, 'Where did they go to?' 'Into what sea were they put?' and thence it passed to the question of the actual reality of the whole narrative, as given in the Book of Genesis.²⁶

Colenso's first volume of *The Pentateuch and Book of Joshua Critically Examined*, in which Ngidi's influence was acknowledged, was published three years later. That an African could transform the theology of an educated bishop of the high church featured heavily in the ridicule to which Colenso was subsequently subjected, culminating in his excommunication from the Church of England. The scandal reverberated internationally, and Matthew Arnold's attack on Colenso's reputation in his essay 'The Bishop and the Philosopher' revealed a deep and general discomfort with the democratization of knowledge that the Colenso/Ngidi relationship represented for imperial England in the age of Darwinian revelation.

In general, scholarship focusing on the projects of European missionaries to convert indigenous Africans to Christianity has become increasingly sensitive to the complexities of interpretation and knowledge exchange that occurred in the colonial context.²⁷ While the context of European power and drive to political domination must be acknowledged, there is little to indicate that this translated into a unidirectional or transmission of ideas, nor indeed

25 Guy, Jeff, 'Class, Imperialism, and Literary Criticism: William Ngidi, John Colenso and Matthew Arnold. In: *Journal of Southern African Studies*, no.2, 1997.

26 Colenso writing in 1859, quoted in Guy, p. 228.

27 See for example Comaroff, John and Comaroff, Jean, *Of Revelation and Revolution: Christianity, Colonialism and Consciousness in South Africa* (Chicago: University of Chicago Press, 1991); West, Gerald O., 'Early encounters with the Bible among the Batlhaping: Historical and hermeneutical signs'. In: *Biblical Interpretation*, Vol 12, no. 3, 2004.

that clearly oppositional 'African' or 'European' positions may be assumed in knowledge exchanges. The people who were the 'targets' of conversion clearly exercised their agency and own social agendas in relation to the new ideas and material conditions that the mission presence created.

This background informs an understanding of the current challenges of teaching evolution in two ways: first, it offers a model by which to explore resistance to ideas perceived as politically 'other', in this case the ideas of 'western science'. That these are perceived not merely as alien, but also as threatening an 'indigenous' belief system is not a historical irony to be lamented but rather an indication of the complexity of South Africa's social history. Are African students, in this case, to be treated as intellectually colonized 'par excellence'? Is their struggle with evolutionary theory to be viewed as a derivative of those same struggles in, for example, the United States? To what extent are these challenges local and to what extent are they another feature of globalization, an import of colonial or contemporary evangelical action from the West?

In the Foundation course *Africa in the World*, a scientific body of knowledge that places Africa at the centre, as the very 'cradle of humankind', has generated heated resistance and brought the complexity of historical and social relations directly into the classroom. While this has, on the one hand, has generated enormous frustration for the coordinators of the course, its challenge has led also to a greater curiosity and reflection on the nature of knowledge and power in the post-colonial (South) African context. Neither science nor religion is homogeneous or static, and if we are to understand the ways in which they speak to – or past – each other in South Africa today, we will need to be acquainted with the interaction between these ways of explaining the world and Africa's place in it.

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